

Serial No.: 09/681,771

Attorney Docket No: MCS-004-01

IN THE CLAIMS

Please amend claims 1, 11, 18, 24 and 25 as follows:

1. (Currently Amended) A method for spelling correction of a phrasal string, comprising:

segmenting the phrasal string into a plurality of different segmentations, the plurality of different segmentations including contiguous sub-strings over the phrasal string;

using dictionary looping to spell correct each of the plurality of different segmentations;

determining a cost associated with each of the sub-strings in each of the plurality of different segmentations, ~~the plurality of different segmentations including contiguous sub-strings over the phrasal string,~~ each of the contiguous sub-strings containing a plurality of words; and

identifying a segmentation having a lowest total cost corresponding to a most probable correct spelling of the phrasal string by adding a cost for each of the sub-strings of a segmentation to arrive at a total cost for that segmentation, wherein ~~segmentations~~ a sub-string having a longer length are than another shorter sub-string is assigned a lower cost while the shorter sub-string is assigned a higher cost.

2. (Canceled)

3. (Previously Presented) The method as set forth in claim 1, wherein dictionary looping further comprises comparing each of the plurality of different segmentations with entries in a phrasal dictionary.

4. (Original) The method as set forth in claim 3, wherein the phrasal dictionary is capable of containing phrasal strings including phrases, words and spaces.

5. (Previously Presented) The method as set forth in claim 1, wherein the cost is a cost of correcting each of the plurality of different segmentations.

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6. (Canceled)
7. (Previously Presented) The method as set forth in claim 1, further comprising spell correcting sub-strings of a segmentation using dictionary looping.
8. (Original) The method as set forth in claim 7, wherein dictionary looping further comprises performing a looping search through a phrasal dictionary to compare each of the sub-strings with entries in the phrasal dictionary to find an entry having a closest match.
9. (Original) The method as set forth in claim 8, further comprising constructing a corrected segmentation using the closest match for each of the sub-strings.
10. (Original) A computer-readable medium containing computer-executable instructions for performing the process recited in claim 1.
11. (Currently Amended) A method for spelling correction of a misspelled phrasal string containing words, spaces and characters, comprising:
 - receiving the misspelled phrasal string;
 - dividing the misspelled phrasal string into a plurality of segmentations containing sub-strings having a plurality of words;
 - comparing each of the of the sub-strings in each of the plurality of segmentations to entries in a dictionary to obtain a cost for each of the sub-strings; and
 - determining a best segmentation from the plurality of segmentations that represents the most probable correct spelling of the misspelled phrasal string by adding together the cost of each of the sub-strings for a segmentation to obtain a total cost for the segmentation, wherein the best segmentation has a lowest total cost, and wherein ~~segmentations~~ a sub-string having a longer length are when compared to another sub-strings is assigned a lower cost ~~over segmentations~~ while the other sub-strings having a shorter length are assigned a higher cost.

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12. (Previously Presented) The method as set forth in claim 11, wherein each of the plurality of segmentations contains contiguous sub-strings.

13. (Original) The method as set forth in claim 12, wherein comparing each of the plurality of segmentations to entries in a dictionary is performed by finding a closest match between sub-strings of a segmentation and a dictionary entry.

14. (Original) The method as set forth in claim 11, further comprising determining a cost associated with each segmentation.

15. (Original) The method as set forth in claim 14, wherein the best segmentation is a segmentation having a lowest cost.

16. (Original) The method as set forth in claim 14, wherein hierarchical parameters are used to determine the cost associated with each segmentation.

17. (Original) The method as set forth in claim 16, wherein the hierarchical parameters include at least one of: (a) a length of a dictionary entry; (b) a probability of a dictionary entry given a context of neighboring words of the phrasal string.

18. (Currently Amended) A phrasal spelling correction system for spelling correction of a phrasal string, comprising:

a segmentation module that divides the phrasal string into a plurality of segmentations, each of the plurality of segmentation containing sub-strings containing a plurality of words;

a looping comparator that performs dictionary looping to correct a segmentation by looping through a dictionary and comparing each of the sub-strings of the segmentation with entries in the dictionary to determine a closest match and a cost for each of the sub-strings and adds the cost of each sub-string to arrive at a total cost for the segmentation; and

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an output string containing a corrected segmentation having the lowest total cost that represents a correct spelling of the phrasal string, wherein segmentations a sub-string having a longer length are than other sub-strings is assigned a lower cost over segmentations the other sub-strings having a shorter length, while the other sub-strings having a shorter length are assigned a higher cost.

19. (Original) The phrasal spelling correction system as set forth in claim 18, wherein the looping comparator determines a cost associated with each of the plurality of segmentations.

20. (Original) The phrasal spelling correction system as set forth in claim 19, further comprising a hierarchical module that provide hierarchical parameters to the looping comparator to determine the cost.

21. (Original) The phrasal spelling correction system as set forth in claim 20, wherein the hierarchical parameters include a length of a dictionary entry and a probability of a dictionary entry given a context of neighboring words of the phrasal string.

22. (Original) The phrasal spelling correction system as set forth in claim 18, wherein the dictionary is a dynamic phrasal dictionary containing phrasal strings capable of containing words, phrases, characters and spaces.

23. (Original) The phrasal spelling correction system as set forth in claim 22, further comprising a dynamic update module that provides dynamic updating of phrasal dictionary entries.

24. (Currently Amended) A method for spelling correction of a phrasal string, comprising:

segmenting the phrasal string into a plurality of different segmentations containing sub-strings having a plurality of words;
using dictionary looping to perform a plurality of different searches through a

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dictionary data structure such that each of the different searches begins at a starting node and continually loops back to the starting node to begin another search in order to compare each of the sub-strings with entries in the dictionary data structure to assign a cost to each of the sub-strings;

determining a cost for correction associated with each of the plurality of different segmentations by adding a cost of each of the sub-strings of a segmentation to arrive at the cost of correction, wherein segmentations a sub-string having a longer length are is assigned a lower cost as compared to segmentations other sub-strings having a shorter length; and

identifying a segmentation having a lowest cost of correction corresponding to a most probable correct spelling of the phrasal string.

25. (Currently Amended) A method for spelling correction of a misspelled phrasal string containing words, spaces and characters, comprising:

dividing the misspelled phrasal string into a plurality of different segmentations containing sub-strings containing a plurality of words;

performing dictionary looping of a trie containing a phrasal dictionary to search for each of the sub-strings in the trie;

comparing each of the sub-strings to entries in the trie to find a closest match to the sub-string between a sub-string and a dictionary entry to determine a cost for each of the sub-strings;

summing the cost for each sub-string in a segmentation to determine a total cost for the segmentation;

constructing a corrected phrasal string using a segmentation having the closest sub-string trie matches lowest total cost, wherein ~~matched segmentations~~ a sub-string having a longer length ~~are favored over matched segmentations~~ is assigned a lower cost than other sub-strings having a shorter length, while the other sub-strings having a shorter length are assigned a higher cost.

26. (Canceled)

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27. (Previously Presented) The method of claim 25, further comprising dividing the misspelled phrasal string into all possible segmentations.